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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,629	03/17/2000	Roy P. DeMott	2168	3035

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/527,629

Applicant(s)

DEMOTT ET AL.

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 16-23 and 26-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 – 15, 24 and 25, drawn to a hydrophilic warp knitted pile fabric, classified in class 428, subclass 85⁺.
 - II. Claims 16 – 23, drawn to a method to make a hydrophilic warp knitted pile fabric, classified in class 8, subclass various.
 - III. Claims 26 – 34, drawn to a treated polyester fabric, classified in class 442, subclass 59⁺.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process could be used to produce pile fabrics made of different size filaments or using multifilament fibers as the ground yarn instead of monofilaments.
3. Inventions I and II and invention III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a warp-knitted pile fabric which is chemically treated and a polyester fabric which is chemically treated. Invention III is not limited to a warp-knitted fabric with a raised surface as recited in Invention I and II. Also, inventions I and II are not

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limited to polyester material, as in invention III. Therefore, the inventions have different functions.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or III, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I or III, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group I or II, restriction for examination purposes as indicated is proper.

8. During a telephone conversation with Daniel Alexander on November 6, 2001 a provisional election was made with traverse to prosecute the invention of Group I, claims 1 – 15 24 and 25. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16 – 23 and 26 – 34 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

10. The information disclosure statement filed October 15, 2001, fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of foreign documents CH 673010, JP 59055219, BE 700859, and DE 29717879 which are not in the English language. These references have been placed in the application file, but have not been considered.

Drawings

11. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference signs not mentioned in the description: 36 and 40. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference signs in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

12. The drawings are objected to because on page 24, line 11 Figure 4 is described as having a fabric piece 26. However, Figure 4 does not have reference number 26 and which is described (page 11, line 21) as being the needle loops of the grounds yarns shown in Figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

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13. The disclosure is objected to because of the following informalities: The specification incorporates US 5,935,484 into the application to describe lubricant and soil release finishes for yarns, which relates to one aspect of the invention (page 14, lines 12 – 13). On page 21 of the specification and in US 5,934,484 both the high molecular weight ethoxylated polyesters and the anionic-ethoxylated sulfonated polyester are taught to be soil release agents while the lubricants are not described in detail. In the examples of the specification, however, the fabrics are treated with a combination of high molecular weight ethoxylated polyesters and anionic-ethoxylated sulfonated polyester compounds. It is unclear if the high molecular weight ethoxylated polyester is a soil release agent as well as a lubricant. Or, if the Applicant's invention is applying the combination of the two soil release agents and no lubricant. Is a lubricant taught by the specification? And is the teaching of the specification contrary to US 5,935,484 since two soil releasing agents are being used as a finish and none of the lubricants taught in 5,935,484 are being applied?

Appropriate correction is required.

Claim Objections

14. Claim 7 is objected to because of the following informalities: the phrases “(surfactant/stabilizer agent)” and “(lubricant/softener agent)” should be removed from the claims because it is unclear if phrases limit the claim further since the phrase are in parentheses. Appropriate correction is required.

15. Claim 10 is objected to because of the following informalities: the phrases “at least one of said yarns and fiber” and “at least one of adding an anti-pathogenic agent, dyeing scouring optically brightening, bulking and combinations thereof” should refer to the elements of the

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group in the alternative using “or” instead of “and”, or the phrases should be amended to say “at least one selected from the group consisting of”. The lists in claims 15 and 25 are similarly objected. Appropriate correction is required.

Claim Rejections - 35 USC § 112

16. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

17. Claims 7 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

18. The term "high molecular weight" in claim 7 is a relative term which renders the claim indefinite. The term "high molecular weight" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. What does the Applicant consider to be a “high” molecular weight? Claims 8 – 10 are rejected due to their dependency on claim 7.

19. The phrase “chemically treated by at least on of ... bulking” in claim 10 is indefinite. How is the yarn or fabric “chemically treated” to bulk the fabric?

20. Claim 24, which depends on non-elected claim 16, is examined based on the structural limitations of the fabric produced by the process in claim 16.

Double Patenting

21. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

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Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. Claims 1 – 15, 24 and 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 - 6 of Hepflinger, U.S. Patent No. 5,916,273, in view of Schuette et al. (5,725,951). It would have been obvious to one having ordinary skill in the art to create a hydrophilic fabric by adding the soil releasing agents taught by Schuette et al. to the fabric taught by Hepflinger to improve the durability and the washability of the fabric. Also, the fabric would have a better appearance over time, be easily cleaned or laundered, increasing the usefulness of the fabric.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claims 1 – 15, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheller (4,712,281) in view of Schuette et al. (5,725,951).

Scheller disclose a warp knit nappable fabric made on a warp knitted machine of at least three bar construction (abstract). The underloops of the fabrics are nappable on the technical

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back of the fabric (column 2, lines 62 – 64). The yarns are made from polyester or nylon polymers (column 8, lines 16 – 17). One embodiment taught by Scheller, includes only napping the technical back to produce a fabric with a plush surface and a smooth surface (column 3, lines 13 – 16). The ground yarns of the fabric are monofilament yarns and the pile yarns are multifilament yarns (column 3, lines 21 – 25). The multifilament yarns have a total denier of 60 – 75, while the monofilament yarns have a denier of 20 (column 5, lines 40 – 45). Any type of monofilaments and microfilaments may be used as ground yarns or pile yarns and may be of any selected denier (column 5, lines 46 – 51). Further, Scheller discloses that the pile yarns should be heavier than the ground yarns (column 5, lines 52 – 53).

Scheller fails to teach making the fabric hydrophilic. Schuette et al. is drawn to a textile yarn finish having a continuous aqueous phase with a soil release agent incorporated therein and a discontinuous phase of a lubricating oil. The chemical treatment can be added to natural and synthetic fibers such as polyester and nylon (column 2, lines 21 – 25). The soil release agent improves the washability and moisture transport properties of the synthetic fibers (column 1, lines 19 – 21). The soil release agents work by making the synthetic fibers hydrophilic, so that the materials will absorb water and be more likely to release oil and grease particles which are hydrophobic. This improves the absorbance, wicking, cleaning, laundering, printing, color fast, and durability properties as well. The treated textile comprises about 0.05 to 0.3% OWF of a soil release agent is added (column 2, line 40). The chemical treatments can comprise other chemical treatments such as auxiliaries biocides, which correlates to the Applicant's anti-pathogenic agent, antistatic agents, and wetting agents (column 2, lines 58 – 60). Finally, Schuette et al. discloses using high molecular weight ethoxylated polyesters and anionic ethoxylated sulfonated

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polyesters as soil releasing agents. Thus, it would have been obvious for one having ordinary skill in the art to add the chemical treatment taught by Schuette et al. to the fabric taught by Scheller to improve the soil release properties of the fabric making it easier to clean the fabric and increasing the number of places the fabric can be used. Therefore, claims 1, 3, 4, 6, and 15 are rejected.

Scheller et al. fails to teach using microdenier filaments in the multi-filament pile yarns. However, Scheller does teach that any type of fiber can be used as the ground or pile yarns, as set forth above. Therefore, it would have been obvious to one having ordinary skill in the art to choose microdenier filaments in the pile yarns. Therefore, claims 2, 24 and 25 are rejected.

Scheller fails to teach the claimed stitch pattern. However, Scheller discloses that the suggested stitch construction is only one possible variation and the fabric constructions and method of knitting the fabric is virtually limitless (column 8, lines 26 – 30). Thus, it would have been obvious to one having ordinary skill in the art to choose the claimed stitch pattern since Scheller discloses that the fabric can be made with alternative fabric constructions and it is within the skill of the art to choose a known material i.e., a stitch pattern, on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Thus, claim 5 is rejected.

The high molecular weight ethoxylated polyesters and the anionic sulfonated polyesters are taught by Schuette as conventional soil releasing agents which function to add durability to the fiber. It is obvious to one having ordinary skill in the art to combine the separately-taught prior art ingredients which perform the same function since it is logical that they would produce

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the same effect and supplement each other. *In re Crockett and Hulme*, 126 USPQ 186 (CCPA 1960). Thus, claims 7 – 10 are rejected.

Although the limitations of absorbency, wicking, printing definition, and moisture dissipation are not explicitly taught by Scheller or Schuette et al. it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. polyester multi-filaments and monofilaments with a soil release coating to make the fiber hydrophilic) and in the similar production steps (i.e. warp knitting and brushing, shearing, or napping the multi-filament face of the fabric) used to produce the hydrophilic warp knitted pile fabric. The burden is upon the Applicant to prove otherwise. Claims 11 – 14 are rejected.

25. Claims 1 – 6, 11 – 15, 24 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hepflinger (5,916,273) in view of Schuette et al. (5,725,951).

Hepflinger discloses a warp knitted plush fabric. The warp-knitted fabric of at least three-bar construction, which is comprised of multifilament synthetic pile filaments on the technical back which are raised or broken to produce a plush surface and monofilaments synthetic ground yarns on the technical face, the pile yarns being comprised of microdenier filaments not greater than 1.1 (abstract). The ground yarns are synthetic monofilaments which are not less than 10 denier. The synthetic yarns are preferably polyester (column 2, lines 50 – 59). The warp-knitted fabric has pile yarns in a 1-0, 4-5 stitch pattern, while the ground yarns are knitted in a 1-0, 0-1 and 1-0, 2-3 stitch pattern (column 1, lines 53 – 56). Hepflinger fails to teach making the fabric hydrophilic.

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The features of Schuette et al. have been set forth above. Schuette et al. discloses adding a chemical treatment to increase the soil releasing properties of the synthetic fabrics. Therefore, it would have been obvious for one having ordinary skill in the art to add the chemical treatment taught by Schuette et al. to the fabric taught by Hepflinger to improve the soil release properties of the fabric making it easier to clean the fabric and increasing the number of places the fabric can be used. Therefore, claims 1 – 6, 15, 24, and 25 are rejected.

The high molecular weight ethoxylated polyesters and the anionic sulfonated polyesters are both recognized conventional soil releasing agents which function to add durability to the fiber. It is obvious to one having ordinary skill in the art to combine the separately-taught prior art ingredients which perform the same function since it is logical that they would produce the same effect and supplement each other. *In re Crockett and Hulme*, 126 USPQ 186 (CCPA 1960). Thus, claims 7 – 10 are rejected.

Although the limitations of absorbency, wicking, printing definition, and moisture dissipation are not explicitly taught by Hepflinger or Schuette et al. it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. polyester multi-filaments and monofilaments with a soil release coating to make the fiber hydrophilic) and in the similar production steps (i.e. warp knitting and brushing, shearing, or napping the multi-filament face of the fabric) used to produce the hydrophilic warp knitted pile fabric. The burden is upon the Applicant to prove otherwise. Claims 11 – 14 are rejected.

Conclusion

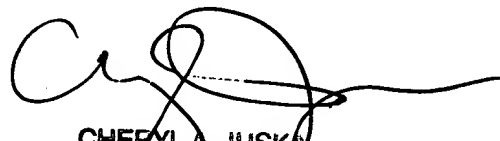
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (9:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo
December 14, 2001



CHERYL A. JUSKA
PRIMARY EXAMINER